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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,323	06/26/2000	Fang Sun	5003073.005US2	3143
29739	7590	05/08/2007		
SMITH MOORE LLP			EXAMINER	
P.O. BOX 21927			NUTTER, NATHAN M	
GREENSBORO, NC 27420			ART UNIT	PAPER NUMBER
			1711	
			MAIL DATE	DELIVERY MODE
			05/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/603,323	SUN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nathan M. Nutter	1711	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04-07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

In the Response of 17 April 2007, applicants state: "(i)t is noted to the Examiner that previously presented claim 23 has not been considered in the Office Action." Claim 23 was intended as rejected in the prior Office Action, as was noted on the Office Action Summary sent out therewith. The only rejection made in the application was made over Woodrum (US 5,997,690), taken in view of Akers (US 5,607,550). Applicants' counsel was apprised of the rejection as to the PTOL-326 listing thereof. If applicants were confused as to what was rejected, a telephone call to the Examiner would have sufficed. The rejection will not be re-made because of a typographical error, when all other indicators point to the rejection. Applicants' counsel is responsible for the rejection since notice was made on the Summary.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 20-23 are rejected under 35 U.S.C. 103(a) as obvious over Woodrum (US 5,997,690), taken in view of Akers (US 5,607,550).

The reference to Woodrum teaches the production of a web by a wet-laid process that includes an ion sensitive super absorbent polymer (SAP), fibers, and a salt

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dissolved in the water carrier. Note the Abstract and column 2 (lines 46-67). At column 3 (lines 1-13) the reference teaches the polymer as being particulate upon impregnation onto the web, and ion-sensitive, i.e. pre-super absorbent. Note the paragraph bridging column 3 to column 4 for the neutralization of the polymer. The SAP is discussed in depth at column 6 (line 27) to column 7 (line 26), including the surface cross-linking thereof. Further, note column 2 (lines 15-35) which teaches reasons for the manipulation of the ratio of SAP to fiber.

The reference to Akers shows the conventionality of the wet laid slurry process wherein the ratio of superabsorbent polymer to fiber is within the claimed range at 1:99 to 50:50, which embraces the claimed range at 30-40 for the SAP and 60-70 for the fiber. Note the Abstract. The reference shows essentially the same method as recited herein. note column 3 (line 40) to column 4 (line 43) and the Examples.

Both references teach the same essential wet-laid slurry process. Woodrum shows each feature exactly as claimed except the ratio of SAP to fiber included. The reference to Akers teaches that ratio to be conventional, and in view of the teachings of Woodrum at column 2 (lines 15 et seq), a skilled artisan would have reason to employ the ratio of the secondary reference. Nothing unexpected has been shown.

### ***Response to Arguments***

Applicant's arguments filed 17 April 2007 have been fully considered but they are not persuasive.

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Applicants argue "Woodrum teaches a wet-laid slurry made with superabsorbent polymer particles, whereas Akers uses superabsorbent polymer fibers and teaches away from using superabsorbent polymer particles." akers is relied upon to show the employment of the wet-laid process as conventional. The reference shows the use of a superabsorbent polymer and a fiber. Applicants contend, without showing support for such, "Akers specifically teaches away from using superabsorbent particles." The passage at column 1 (lines 51-63) shows the preferred use of fibers to particulate, and the reasons for such, but the reference does not exclude particulates. A skilled artisan not concerned with the incorporation, as fibers, as opposed to particulates, in the absorbent web would not be led away from the claimed invention following the teachings of the reference to Akers for the reasons set out in the Office Action. Applicants are requiring the secondary reference to teach all parameters of the claims. If this were the case, separate rejections would have been made over each reference. Applicants are reminded that the references are cited for the reasons set out in the Office Action.

All earlier responses to applicants' arguments with regard to Woodrum are retained and repeated below.

Applicants have alleged, yet failed to show, differences of the instant claims over the reference to Woodrum (US 5,997,690). Both the reference and the instant claims require a wet-laid web. Applicants allege that "Woodrum fails to disclose a water

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sorptive product including a pre-superabsorbent and a neutralizing agent as set forth in the present claims.” This is not so since the reference is clear that a superabsorbent in particulate form is employed, just as recited herein. The neutralizing agent is employed, as well, being the salts disclosed at the paragraph bridging column 3 to column 4, including sodium carbonate, which is disclosed in the instant Specification at the paragraph bridging page 8 to page 9. The identical effect would be realized using the teachings of Woodrum as herein since the same constituents are employed. The order of addition of the constituents, since all are added for the identical reasons to a composition that is identically produced otherwise, is not deemed to be critical, nor has such been shown by applicants. Applicants further allege that “(n)ot only does Woodrum fail to teach a water sorbtive (sic) product including a neutralizing agent, Woodrum at column 4, lines 2-5, teaches including a salt such as sodium sulfate since carbonates have the effect of further neutralizing the SAP. Based on this, Woodrum would teach away from including a neutralizing agent, as required by the present invention.” This is not deemed to be precise nor convincing. The reference says “preferred salt” and still includes the carbonates within the definition of suitable neutralizing agents. A reference is taken for the entirety of its teachings, not for any isolated passage used to assert patentability. Further, depending on the degree of neutralization desired, a skilled artisan would know to what level the neutralizing salt might be employed suitably.

Further, as of 3 July 2006, applicants contend that the “paragraph bridging columns 3 and 4 does not disclose neutralization of the superabsorbent polymer but discloses “[t]he preferred salt is sodium sulfate because chloride salts contribute to



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metal stress cracking, and carbonates have the effect of further neutralizing the SAP." Clearly, by this, Woodrum teaches one does not use a neutralizing agent in the water slurry." Applicants words ring hollow since applicants attempt to distort and mis-characterize the full teaching of that passage even as they attempt to differentiate using same. The passage clearly says "(t)he preferred salt is sodium sulfate because... carbonates have the effect of further neutralizing the SAP," which is essentially the concept herein. Carbonates are disclosed as being usable, and will neutralize, as argued by applicants for their own composition. A reference is viewed for the entirety of its teachings, not for isolated phrases that might lend relevance to their otherwise erroneous arguments. Further, applicants have failed to show why the water sorptive composition of Woodrum (swells with the addition of water)). Finally, applicants contend the SAP of Woodrum is not a pre-SAP, which is merely the SAP before neutralization. This is not so in view of patentee's disclosure at column 6 (lines 27 et seq.) which clearly recite polymers that are not neutralized, as well as neutralized and partially neutralized. Choice of the pre-SAP definition polymers is within the skill of the art, and is shown by the reference itself. Applicants' conclusions are based on reasoning using only selected passages, and interpretation of passages out-of-context, while ignoring the totality of the reference's teachings.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

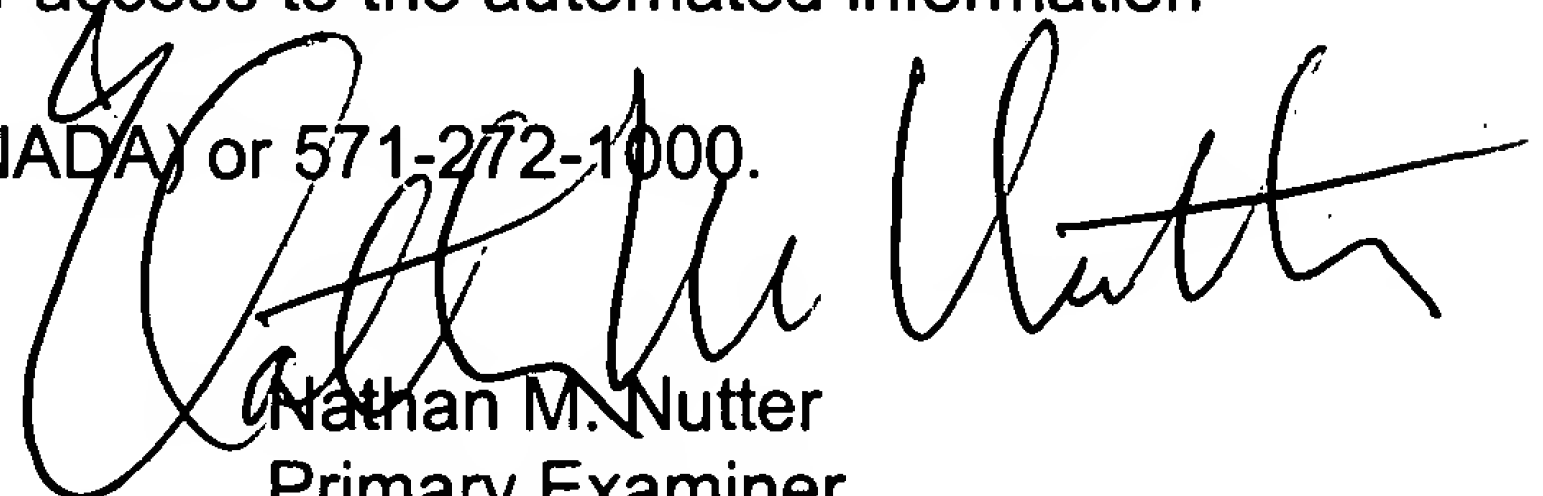
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nathan M. Nutter  
Primary Examiner  
Art Unit 1711

nmn

4 May 2007